



Features

- Working voltage up to 1500 VDC
- Hi-Pot: 6400 VDC, 1 mA, 60 sec.
- Developed for use with NXP model 33771C series and Analog Device's model AD1818 and LTC6804/681X series
- Design construction: Reinforced insulation between primary and secondary per IEC 62477-1, IEC 60664-1 & IEC 62368-1

- EN recognized: EN No. 24SLCS11028 C0314 per EN 62368-1.
- UL recognized per UL 62368-1, File No. [E515965](#)
- Creepage distance >16.6 mm, pollution degree 2, material group CTI I
- Clearance distance >16.6 mm, Overvoltage Category III
- RoHS compliant* and AEC-Q200 compliant

SM91534AL BMS Transformer

Additional Information

Click these links for more information:



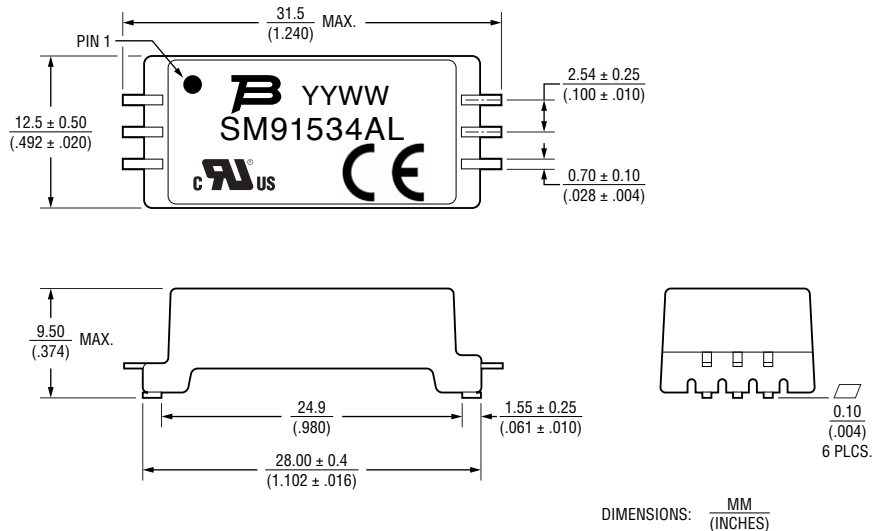
General Specifications

OCL (100 kHz / 0.1 V)
 (-40 °C ~ +125 °C)..... 150 μH min.
 Leakage Inductance (100 kHz/0.1 V)
 0.6 μH max.
 DCR
 Transformer Side 0.5 Ω max.
 CM Choke Side 0.6 Ω max.
 Turns Ratio 1 : 1 ± 2 %
 Insertion Loss:
 4 MHz..... -1.0 dB max.
 Return Loss (Z out = 100 Ω)
 4 MHz:..... -20 dB min.
 Common Mode Rejection Ratio
 1~100 MHz..... -30 dB min.
 Hi-pot (1 mA, 60 S)..... 6400 VDC
 Working Voltage up to 1500 VDC
 Partial Discharge Level
 1500 VAC, 50 Hz
 Impulse Voltage 12 kV, 1.2/50 μs
 Operation temperature
 - 40 °C to +125 °C
 Storage Temperature
 -25 °C to +85 °C
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

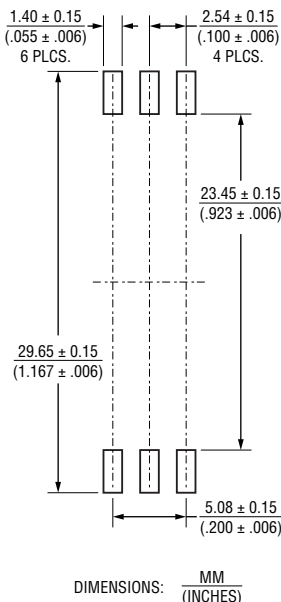
Packaging Specification

Tape & Reel..... 300 pcs. per 13-inch reel

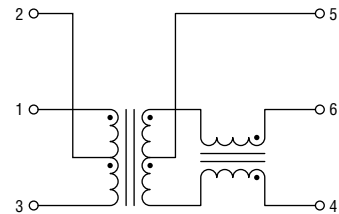
Product Dimensions



Recommended Layout



Electric Schematic



How To Order

SM91534 A L - E

Model _____
 AEC-Q200 Compliant _____
 Termination _____
 L = Tin (RoHS Compliant)
 Packaging _____
 E = Tape and Reel



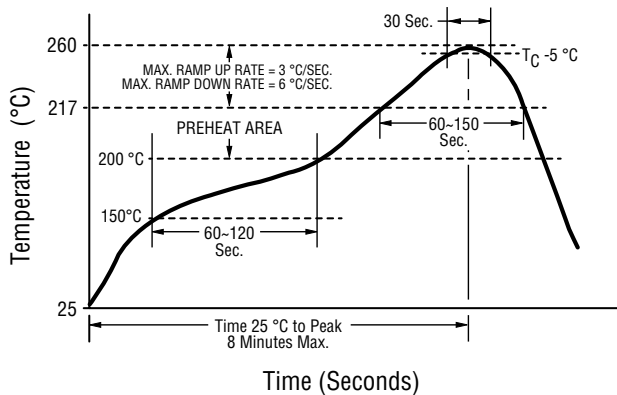
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Solder Profile



Profile Feature	Pb Free Assembly
Preheat	
- Temperature Min. (T_{smin})	150 °C
- Temperature Max. (T_{smax})	200 °C
- Time (t_s) from T_{smin} to T_{smax}	60-120 seconds
Ramp-up Rate (T_L to T_P)	3 °C/second max.
Liquidous temperature (T_L)	217 °C
Time (t_L) maintained above T_L	60-150 seconds
Peak package body temperature (T_P)	$T_P \leq T_C$ (see table below)
Time within 5 °C of Actual Peak Temperature (t_p)	30 seconds
Ramp-Down Rate (T_P to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Pb-free Process Classification Temperatures (T_c)

Package Thickness	Volume mm ³ <350	Volume mm ³ 350~2000	Volume mm ³ >2000
<1.6 mm	260 °C	260 °C	260 °C
1.6 ~ 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Refer to IPC/JEDEC J-STD-020

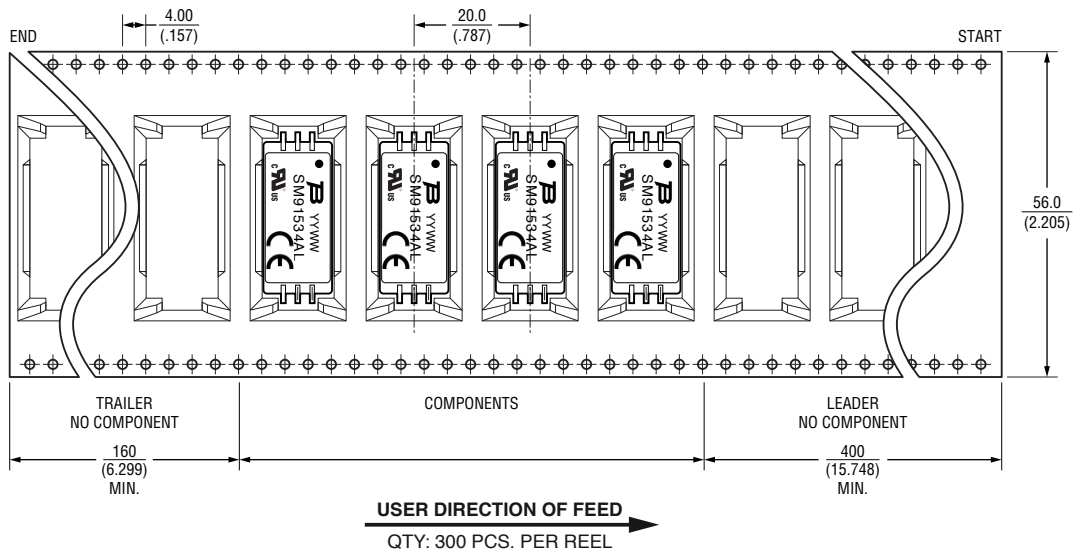
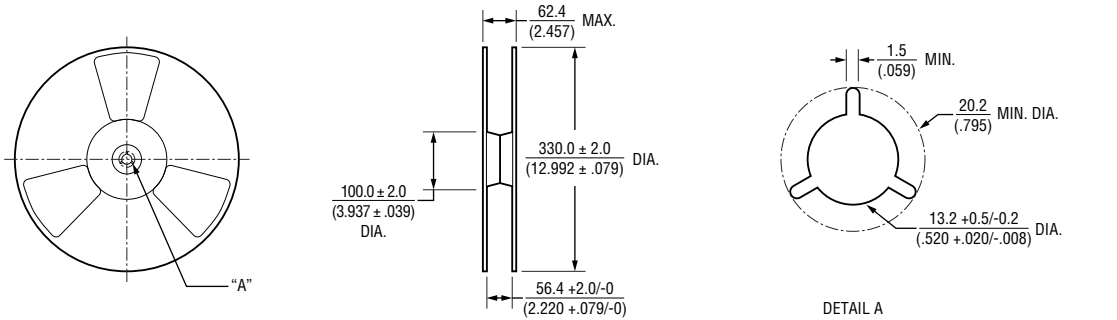
This product has been tested under this reflow condition. Deviations from this, especially higher temperature or longer durations, could impact performance.

SM91534AL BMS Transformer

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Packaging Specifications

Specifications and tolerances comply with EIA-481 requirements.



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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